

Defense Language Institute Foreign Language
Center, Presidio of Monterey

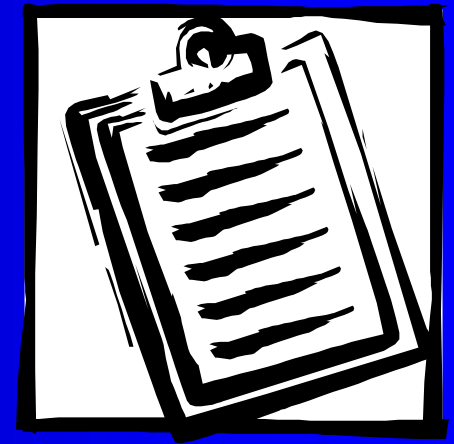
Environmental Management System

General Awareness Training



EMS General Awareness Training Outline

- What is an EMS?
- Why the interest in EMSs?
- Benefits of an EMS
- Basic Structure of an EMS
- Continual Improvement



What is an Environmental Management System?

“The part of the overall management system that includes organizational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing achieving and reviewing the environmental policy.” ISO 14001





What is an Environmental Management System?

An environmental management system brings together the people, policies, plans, review mechanisms, and procedures used to manage environmental issues at a facility or in an organization.

An EMS is *Environmental*

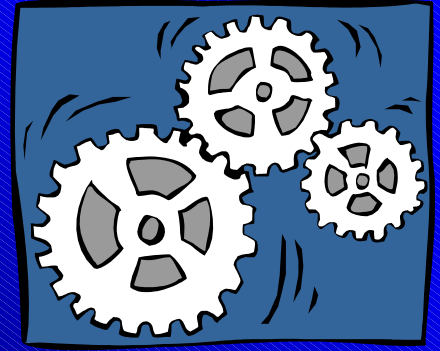
- Facilitates environmental compliance
- Addresses environmental impacts
- Broadens environmental responsibilities to all whose work can have a significant impact on the environment
- Environmental office has technical expertise to contribute



An EMS is *Management*

- Must have commitment of top managers
- EMS owned by facility manager
- Must be consistent with other management systems

An EMS is a *System*



- Requires awareness of formal structure
- Addresses policies, procedures, programs
- Doesn't specifically address compliance components
(drums, labels, etc.)

What is an EMS?

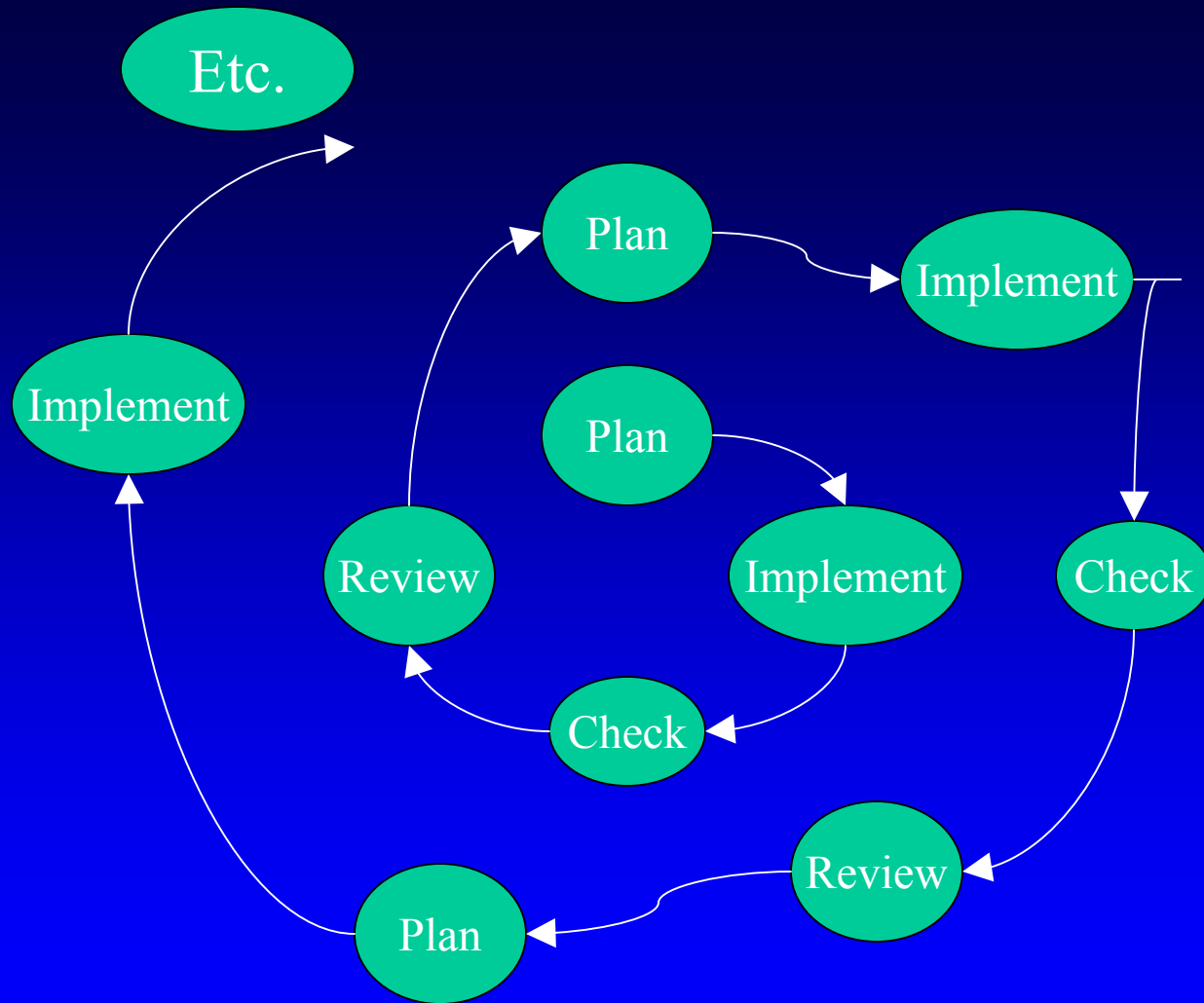
An EMS is:

- an organizational rather than a technical approach
- a complement to government regulations
- formally structured and rigorous
- part of an organization's larger management structure

An EMS is concerned with:

- environmental management of an organization
- ongoing efforts to improve environmental performance

Continual Improvement Cycle



ISO 14001 Components



*An effective EMS integrates
environmental management into
everyday activities.*

Why Implement an EMS?



- Executive Order 13148
- DoD EMS Policy
- Deputy Assistant Secretary of the Army Action Memo on EMS

Executive Order 13148

April 22, 2000

Greening the
Government
Through
Leadership in
Environmental
Management



Executive Order 13148



- Federal agencies:
 - “....integrate environmental accountability into agency day-to-day decision making and long-term planning processes”
 - Establish EMS at all facilities by 31 December 2005
- Installations:
 - Develop and annually review/update measurable environmental goals, objectives, and targets
 - Incorporate EMS review into existing audit protocols

DoD EMS Policy

- “DoD Components shall adopt an EMS and work to integrate it in all core business areas”
- “Each DoD Component shall implement an EMS that best suits its mission needs”
- “At minimum, DoD Components shall implement an EMS meeting requirements of EO 13148”

DoD EMS Policy

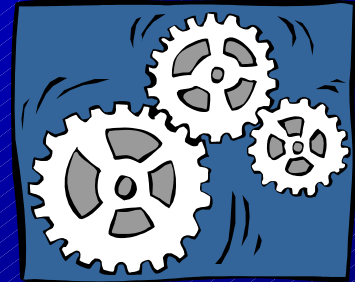
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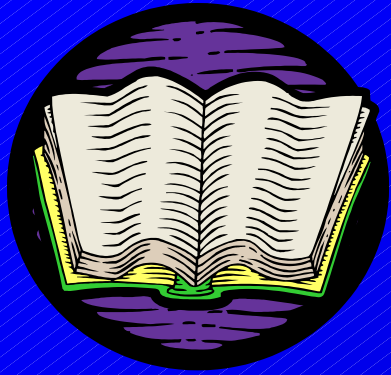
- “Each DoD Component’s EMS shall include the following elements:
 - Public commitment by senior leaders to environmental compliance, pollution prevention, and continual improvement of the management system;
 - Integrated planning, including goals and targets for reducing environmental impacts and supporting mission priorities;
 - Operations to assure attainment of those goals and targets, and training to ensure individual competence and responsibility.”

DoD EMS Policy

(continued)

- “Each DoD Component’s EMS shall include the following elements:
 - Procedures for self-evaluation and corrective action, including priority inclusion of identified needs in budget processes; and
 - Periodic review of the management system by senior leadership, with recommendations for improvement and publication of the review.”





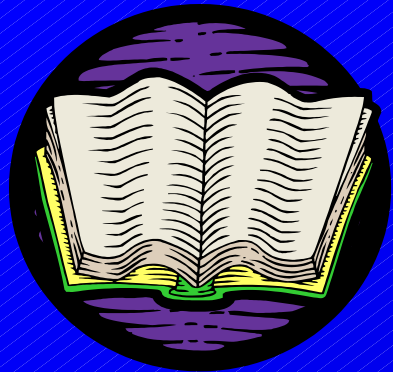
U.S. Army EMS Guidance

- 2001 Action Memorandum, subject: Army EMS
(<http://aec.army.mil/usaec/support/ems-requirements080601.pdf>)
- U.S. Army EMS Implementers Guide
- U.S. Army EMS Commanders Guide
- These two guides and other information
available on the DENIX Army EMS website:
<http://www.denix.osd.mil/denix/DOD/Library/EMS/ems.html>



U.S. Army EMS Policy

- Adopt ISO 14001 as a goal
- Incremental implementation:
 - EMS initiation no later than FY04
 - EMS in place no later than 12/31/05
 - Using continual improvement, build remaining parts of a mission-focused, ISO 14001-conforming EMS by 12/09
- Third party registration is not required

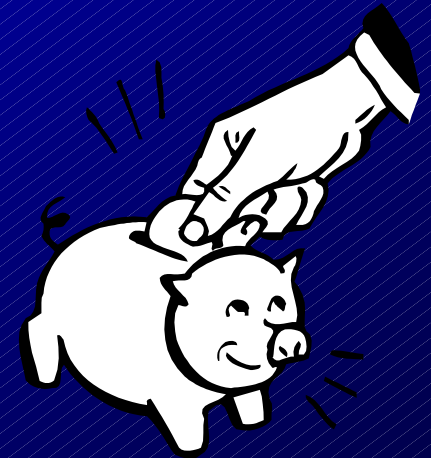


U.S. Army EMS Metrics

- ISO 14001-conformant policy by 09/30/03
- EMS self-assessment by 03/30/04
- EMS implementation plan by 09/30/04
- Prioritized list of aspects by 03/30/05
- Awareness-level briefings on the Army's EMS to all appropriate personnel by 03/30/05
- **At least one management review by 12/31/05**
- Full conformance w/ ISO 14001 NLT 2009

Benefits of an EMS

- Help maintain compliance
- Reduce operating costs
- Integrate environmental programs into mission
- Increase employee involvement
- Reduce environmental impacts

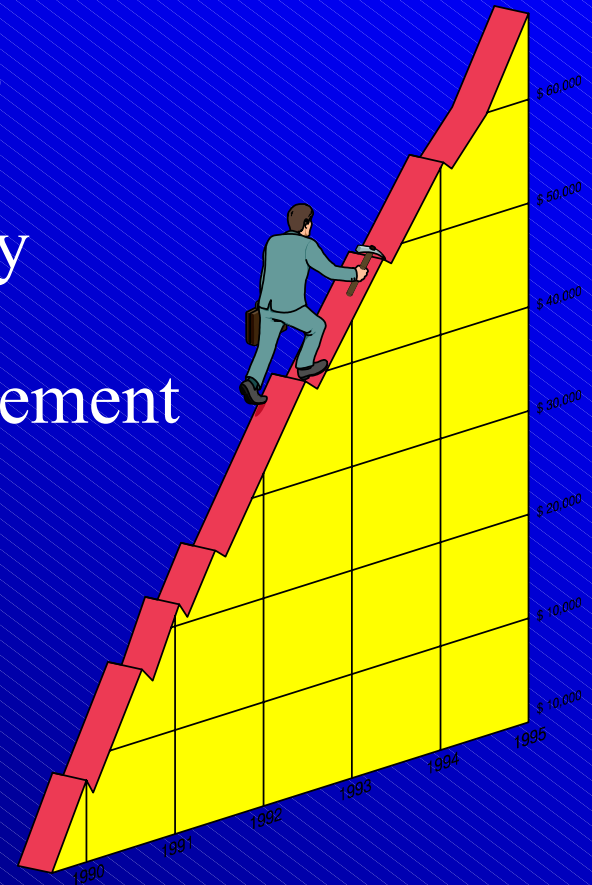


Basics of an EMS Framework

EMS Fenceline

Define the scope of your EMS

- Physical boundaries of facility
- Incorporation of other management systems
- Departments/organizations involved



Components of an EMS

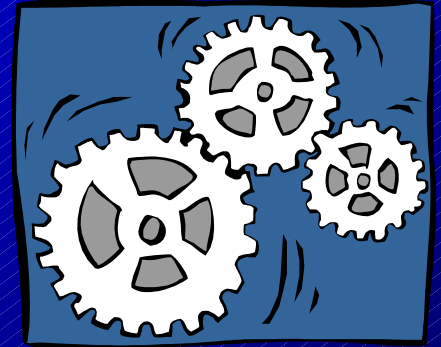
Policy

Planning

Implementation and Operation

Checking and Corrective Action

Management Review



POLICY

Top management must define its policy & ensure it is

- Appropriate
- Includes a commitment to regulatory compliance
- Establishes a framework for setting & reviewing environmental objectives and targets
- Documented, implemented and maintained
- Communicated to all employees
- Available to the Public

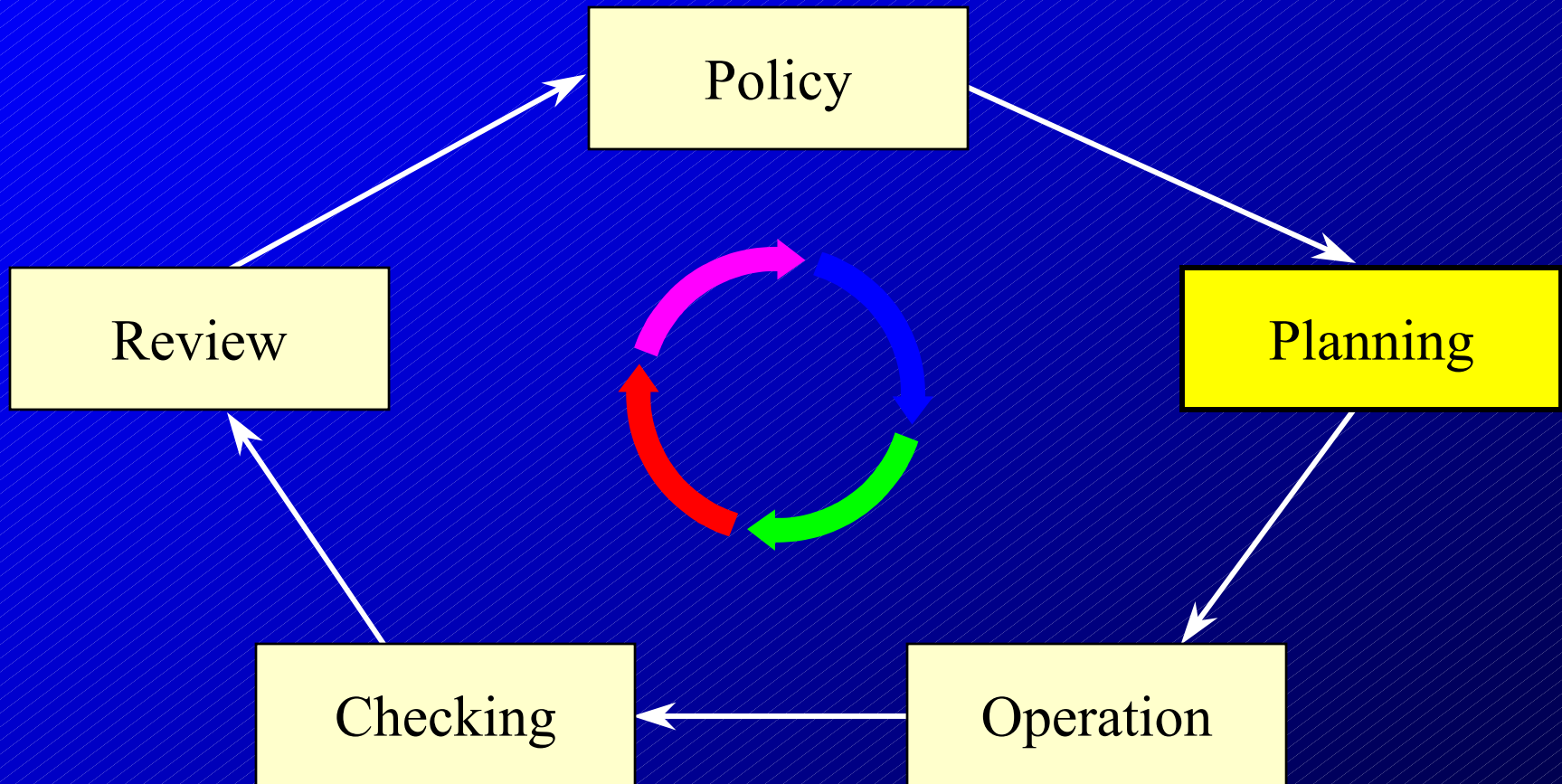


ISO 14001 Requirements



Management Commitment

EMS Cycle



PLANNING

- ◆ An organization must develop a plan to implement its environmental policy
- ◆ Plan must address
 - ◆ environmental aspects and impacts
 - ◆ legal and other requirements
 - ◆ objectives and targets
 - ◆ environmental management programs

Environmental Aspects

- Establish/maintain procedures to identify environmental aspects of an organization's activities, services and products
- Determine significant aspects
- Consider significant aspects in determining objectives

Legal and Other Requirements

Establish and maintain procedures for identifying environmental requirements that the organization must follow.



Objectives and Targets

- Establish and maintain objectives and targets at each level and function of the organization.
- Objectives and targets must be consistent with the organization's environmental policy and commitment to pollution prevention.

Objectives & Targets (cont.)

When determining objectives and targets consider

- ✓ significant environmental aspects
- ✓ legal and other requirements
- ✓ technical options
- ✓ financial and operational requirements
- ✓ views of interested parties

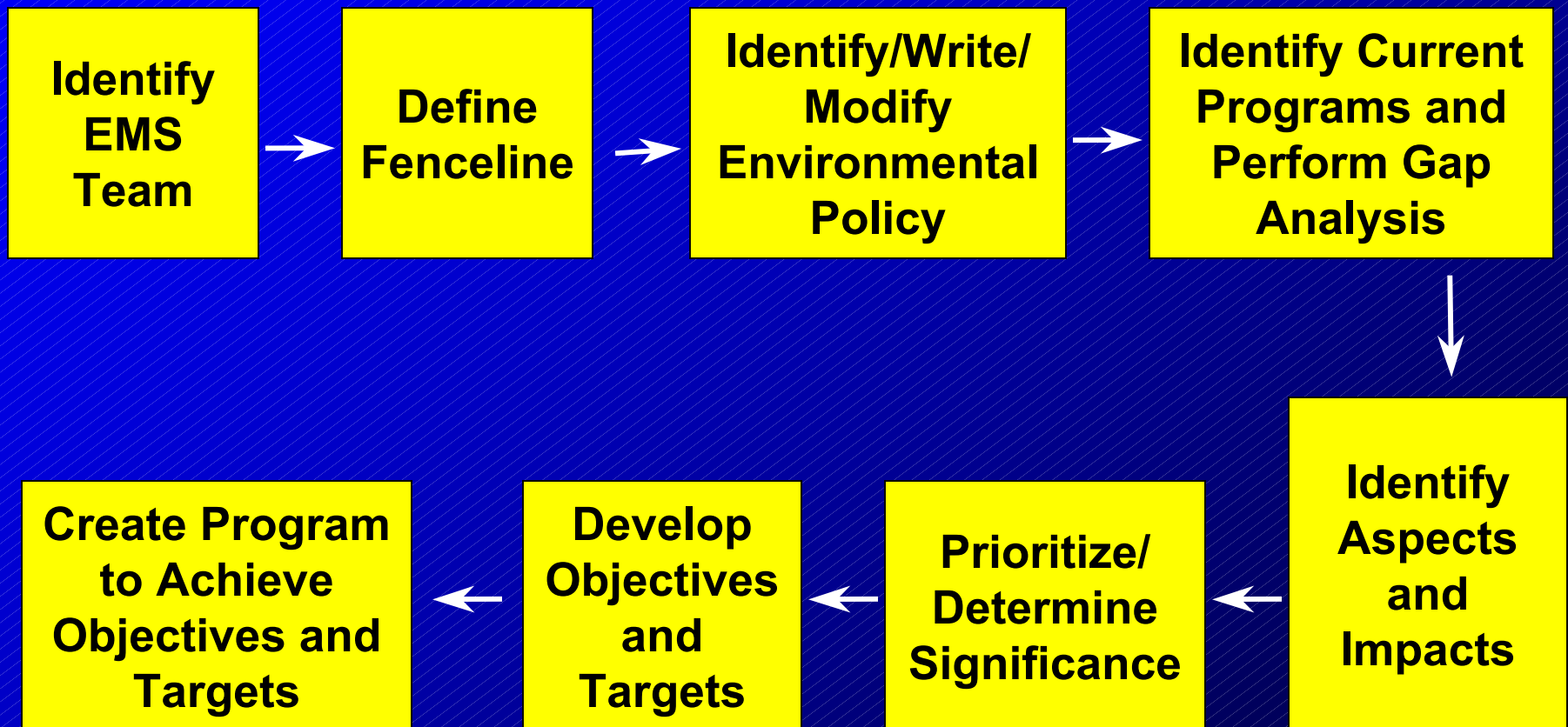
Environmental Management Program

Allows the organization to achieve its objectives and targets.

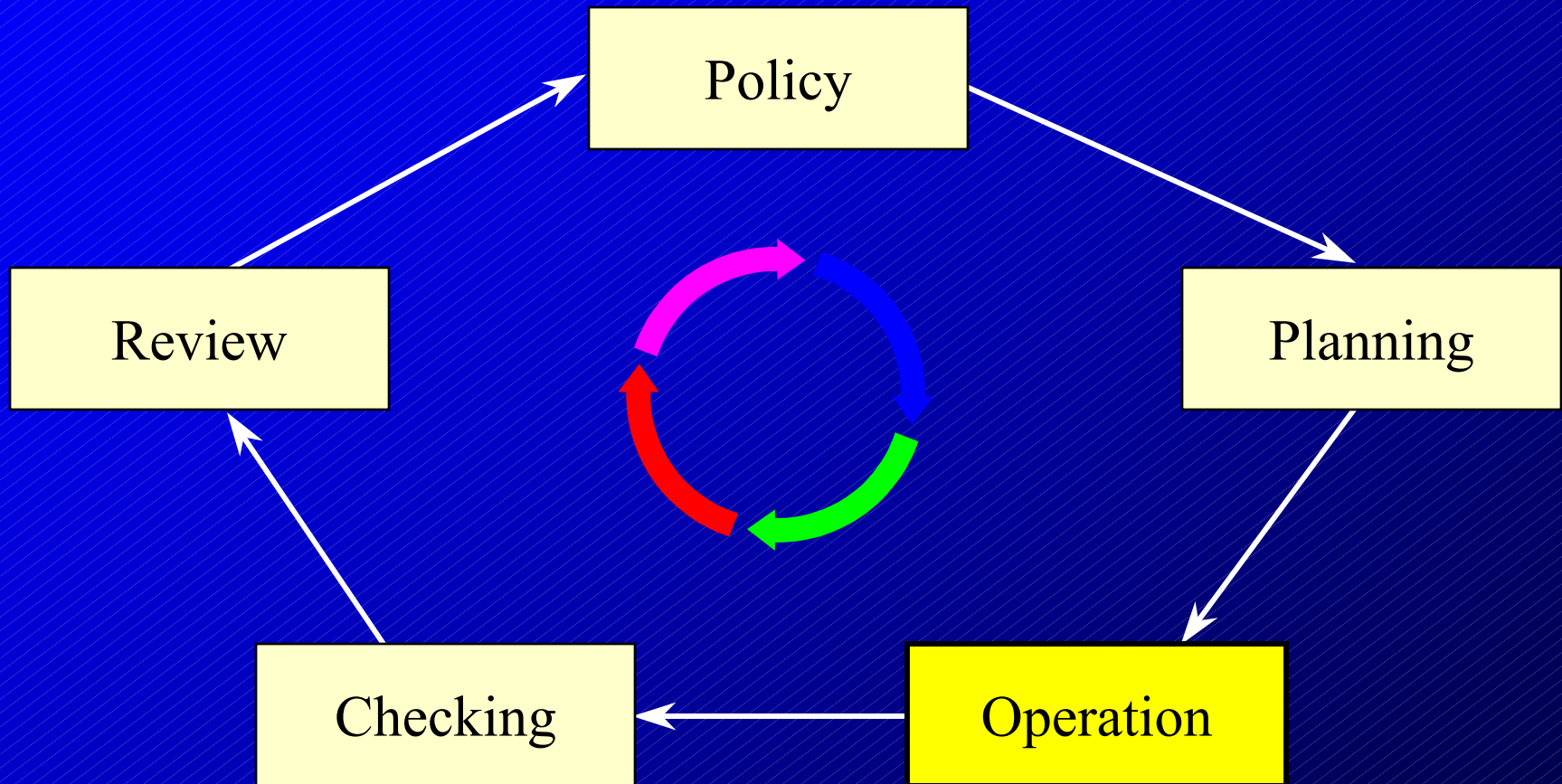
An effective program should

- ✓ include a timeframe
- ✓ establish methods to achieve objectives
- ✓ designate responsibilities
- ✓ be updated for new or modified activities, services or products

EMS Planning Steps



EMS Cycle



IMPLEMENTATION AND OPERATION

An effective EMS requires the development of support mechanisms necessary to achieve environmental policies, objectives and targets, such mechanisms include

- ◆ Resources, Roles, Responsibility and Authority
- ◆ Competence, Training and Awareness
- ◆ Communication
- ◆ Documentation
- ◆ Control of Documents
- ◆ Operational Control
- ◆ Emergency Preparedness and Response



Resources, Roles, Responsibility and Authority

- ✓ Appropriate resources including human and financial are provided
- ✓ Roles, responsibilities and authorities are properly defined, documented and communicated
- ✓ An EMS representative is appointed to
 - ✓ ensure that EMS requirements are met and maintained
 - ✓ report on EMS performance to management

Competence, Training & Awareness

Appropriate training must be provided to all personnel whose job activities impact the environment. This training should entail

- ✓ potential environmental impacts of their activities
- ✓ importance of conforming with the organization's EMS
- ✓ their roles and responsibilities for EMS compliance
- ✓ consequences of not complying with the EMS

Communication

An organization must establish procedures for
Internal communication
External communication



Documentation

Establish and maintain
documentation to

- describe the core elements
of the EMS
- identify the location of
related documents

Control of Documents

All EMS documents should be

- ✓ readily located
- ✓ available for use where EMS activities occur
- ✓ reviewed and updated periodically
- ✓ removed when obsolete
- ✓ retained for legal or historic purposes
- ✓ legible, dated and readily identifiable



Key EMS Written Information



Operational Control

Operations that are associated with significant environmental impacts must be identified and controlled by

- Establishing & maintaining documented procedures
- Specify operating/performance criteria in procedures

Emergency Preparedness & Response

Establish and maintain procedures for

- ✓ identifying potential accidents
- ✓ responding to emergencies and accidents
- ✓ preventing and mitigating emergencies

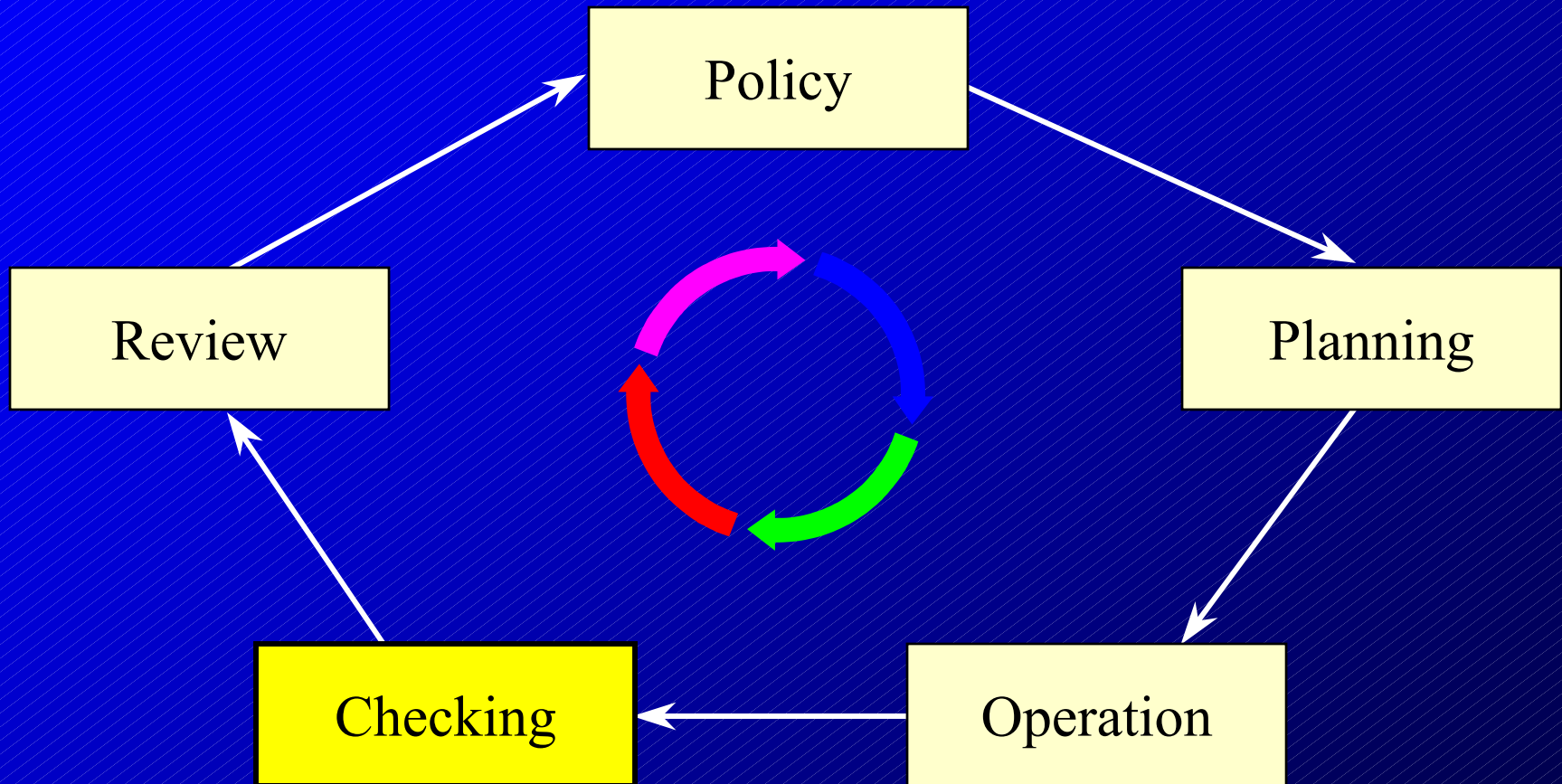


Emergency Preparedness & Response (cont.)

Preparedness and response procedures should be

- maintained and updated
- periodically tested

EMS Cycle



CHECKING

Procedures shall be established for monitoring the EMS and correcting problems. These include

- ✓ Monitoring and measurement
- ✓ Evaluation of compliance
- ✓ Nonconformity, corrective action and preventive action
- ✓ Control of Records
- ✓ Internal audit



Monitoring and Measurement

- Regularly monitor and measure operations and activities with potential environmental impacts
- Calibrate monitoring equipment and log calibration activities
- Establish procedures to evaluate compliance with environmental legislation and regulations periodically

Nonconformity, Corrective Action and Preventive Action

- Establish and maintain procedures for handling, investigating and taking action to correct nonconformances
- Ensure corrective actions are appropriate and commensurate with risk
- Record any changes resulting from corrective actions
- Recommend any preventive action to prevent nonconformances

Control of Records

Procedures must be maintained for the identification, maintenance and disposition of environmental records. Records should

- ✓ be legible, identifiable and traceable to the activity, services or product involved
- ✓ be stored and maintained to be easily retrievable and protected from damage, deterioration or loss
- ✓ have the retention time marked and recorded

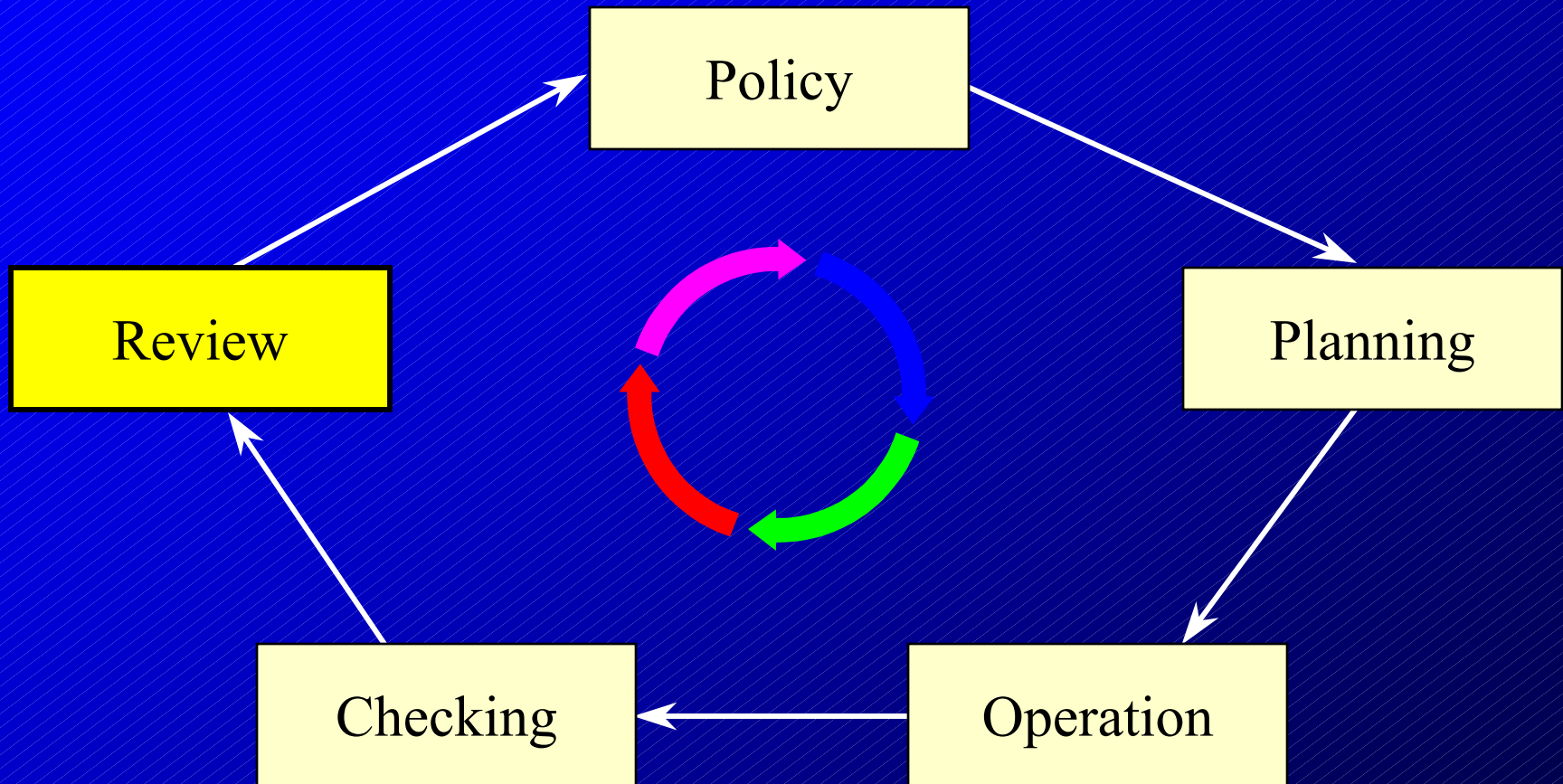
Internal Audit

Establish and maintain programs and procedures for audits to

- determine if the EMS conforms with all requirements
- determine if the EMS is properly implemented and maintained
- provide information on the effectiveness of the EMS

EMS audits should be scheduled regularly and based on the environmental importance of the activity and results of previous audits.

EMS Cycle



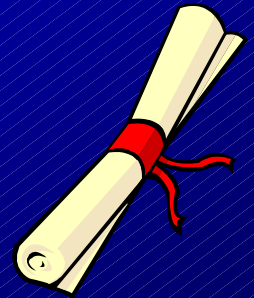
MANAGEMENT REVIEW

Top management must

- ❖ Ensure EMS continues to be
 - ❖ suitable
 - ❖ adequate
 - ❖ effective
- ❖ Address possible changes to policy, objectives and other elements

Continual Improvement

Management must regularly review the EMS and audit results to ensure sustained improvement in environmental performance and compliance with changing regulations.



An organization must be committed to continual improvement of environmental performance so that its EMS continues to be effective and environmental aspects are always factored into business decisions.

The Bottom Line

An EMS is an organizational approach to environmental management

All EMS programs have common principles

- ❖ The goal of incorporating environmental considerations into day-to-day operations
- ❖ The concept of continual improvement



Suggested Resources

<http://www.denix.osd.mil/denix/DOD/Library/EMS/ems.html> (requires username/password)

<https://www.denix.osd.mil/denix/Public/Library/EMS/ems.html> (public version)

<http://www.epa.gov/ems>

<http://www.fedcenter.gov/programs/EMS/>

<http://www.ofee.gov/ems/ems.htm>